

**FRAMEWORK
FOR AN

ASEAN
REGIONAL
FIRE SUPPRESSION
MOBILIZATION PLAN**

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INTRODUCTION

During the 1997 and 1998 Southeast Asian haze event, ASEAN Ministers of the Environment recognized the need for a comprehensive ASEAN strategy relating to haze mitigation. The Regional Haze Action Plan, adopted by the ASOEN Haze Technical Task Force (HTTF) in September 1998, specifically identifies a regional mobilization and response plan as a mitigation action item, thus affirming the strategy as an essential element for improving regional fire suppression capabilities.

To assist in achieving this HTTF objective, this particular document has been developed.

This document is composed of three parts. Part A are general concepts, Part B is a more specific framework, Part C are key tasks. Part A describes basic concepts and key components of a regional mobilization plan (RMP). This section defines broad objectives of the plan, identifies the roles and responsibilities of key groups in developing and implementing the plan, describes some fundamental concepts, and broadly addresses steps towards the development and monitoring of the plan. Part B is a more detailed model framework, outlining a potential RMP for use in Southeast Asia. Part B models Part A components in a more comprehensive fashion, and serves as a proposed framework for placing these components in operation. Part C presents some key tasks or map to begin the task of developing (and possibly implementing) a regional RMP and outlines some required foundations and mechanisms. Part C also indicates some items for consideration in developing mobilization plans for individual member nations. Appendix A provides a sampler list of nations who could be resources for assisting in the development of an RMP.

This document builds upon the excellent foundation provided by the First and Second Working Group Meetings on ASEAN Sub-Regional Fire Fighting Arrangements held in April and May of 1998.

PART A

CONCEPTUAL FRAMEWORK

Objective

The objective of this section is to present a broad basis from which a regional mobilization plan can be developed and implemented by ASEAN member nations. The plan enhances the ability of each nation, region, and ASEAN to more effectively suppress unwanted forest fires.

The objective of an effective mobilization plan is to provide the ability to deal with a range of situations and contingencies faced by those implementing and cooperating in the mobilization plan. As a fire suppression situation escalates and requires additional response resources, mobilization plans allow focus on key objectives. A regional mobilization plan would position and utilize fire suppression resources, in a timely and cost effective manner, to meet anticipated and existing needs regardless of geographic or national affiliations.

Roles and Responsibilities

Haze Technical Task Force - HTTF

The HTTF oversees activities in the monitoring, prevention, and mitigation aspects of haze generated from fires. The HTTF role in developing the RMP is to approve and endorse the conceptual framework presented in Part A of this document.

It is proposed that with HTTF endorsement of the principles outlined in Part A of this framework, HTTF would charter a sub-working group of technical forest fire experts to implement the direction of the HTTF relating to the RMP.

As the RMP is developed, HTTF may consider actual implementation of an ASEAN regional mobilization plan. One possible avenue for testing procedures developed in the RMP would be to designate a Sub-Regional Fire Fighting Arrangement (SRFA) as a pilot project under the auspices of HTTF.

Much work has already occurred in setting a framework for a SRFA, as evidenced by the First and Second Working Group Meetings on ASEAN Sub-Regional Firefighting Arrangements. This framework provides additional ability to move forward with this work.

Sub-Working Group of Technical Fire Experts – TFE

This group is under the auspices of the HTTF. The TFE is composed of technical fire experts from each country, with delegated authority to first develop and then, when appropriate, implement a regional mobilization plan. These national experts form a sub-working group to develop the RMP. The TFE would focus on more fully developing the components of the RMP displayed for consideration in Part A of this document. The TFE will input validated mobilization resources into the RMP. The RMP will be most effective when each of the national contributions to the RMP derive from well-developed individual national strategies. The TFE is provided with the framework and keys outlined in Part B and Part C of this document to assist them in their work.

Each Member Nation

Each member nation of the HTTF will have the role of bringing individual national concerns, thoughts, and opportunities to the TFE as the RMP framework is developed. Solid national fire suppression mobilization plans will serve as a key foundation for the success of sub-regional or regional RMPs focused on cooperation across national boundaries in Southeast Asia. National plans are best developed from the framework of strong provincial or state direction. Each member nation validates and verifies firefighting resource inventory information. Each nation will work cooperatively toward development and implementation of a RMP. Member nations are provided some ideas for national mobilization plans in portions of Part B and Part C of this document.

Critical Concepts

Mobilization plans across the world build on a concept common to military, law enforcement, and firefighting – increasing readiness based on increasing use and likelihood of engagement. The concept has been implemented for centuries and is well validated. Mobilization plans commonly describe the increasing state of readiness, preparation, and engagement needed by resources charged with achieving objectives. The need to define escalated stages of preparedness is reflected in levels commonly described as mobilization levels, preparedness levels, or contingency levels.

Keys to successful mobilization plans are additional concepts which provide a framework for success. These include:

- Understanding key allocation and decision making issues

- Implementing processes and procedures as a result of allocations and decisions
- Activating pre-determined agreements and operating plans necessary to implement process and procedures on a continuum of operational levels.

These three additional concepts are described in further detail below.

Allocation and Decision Making Issues:

As the RMP is developed a key issue for clarification is how allocation and decision processes will apply once the intent for a RMP is exercised. At low levels of fire suppression activity, each member nation has no need for assistance. At the highest levels of fire suppression activity, some member nations will likely have more need for assistance than available regionally. The tension created by the inability to meet every need, combined with the necessity of making allocation decisions, emphasizes the importance of transparency in jointly developing processes and criteria for these decisions.

The RMP should display for the understanding of each cooperator the types of allocations and decisions which will be made as a result of a RMP. Each cooperator should clearly understand how allocations, “brokering”, and decisions would be made.

Process and Procedural Issues:

The RMP displays the tactical requirements common to successful mobilization plans. The ability to determine and agree to various mobilization levels is a key to any mobilization plan. Key factors to determine mobilization levels should include fire activity, predicted fire activity, resources currently deployed, and resources available to a mobilization system.

A structure, organization, or unit is required to implement RMP decisions. This organizational focal point is key to implementing decisions and allocation procedures. As with any organization, continuity and knowledge are keys to success.

Agreements and Operating Plans

Provincial, National, Sub-Regional, ASEAN, and International agreements must be developed and displayed which provide the ability to implement process and procedures. These agreements provide the basis for more detailed operating plans.

Developing the RMP

Developing an RMP is the task of the TFE. There are a variety of successful models across the world to provide a starting point for the TFE. As an example, Appendix A is included.

The need to have a strong basis for communication, including concepts of common terminology and understanding is a key to the success of the RMP.

The RMP displays a variety of inventoried resources, including on-scene and supporting management structures necessary to implement organizational schemes that achieve agreed upon objectives.

Most importantly, the desire and commitment of all cooperators to develop an RMP is the foundation for success.

Recognizing and Measuring the Success of the RMP

The TFE should agree to a variety of monitoring variables that would measure the success of the RMP. These likely should focus on the efficiency of the RMP. The TFE should agree to a monitoring and feedback mechanism to address the need for updating and changing the RMP to meet changing circumstances with continued success.

The option of implementing the proposed RMP through a pilot SRFA project provides a basis for validating the concepts developed by the TFE on a smaller scale. This concept has been endorsed by the excellent activity which has occurred within the context of the First and Second Working Group Meetings on ASEAN Sub-Regional Fire-Fighting Arrangements (held April and May 1998).

Part A – Key Point/Conclusion

An innovative, efficient, and directed RMP can be developed under the auspices of the HTTF. The RMP will build on a basis of understanding key components, following through with tasks, delegating expert tasks to the Sub-working Group of Technical Fire Experts, and following through on implementing and monitoring the effectiveness of the developed plan.

This work will build upon the agreements and foundation already laid by the First and Second Working Group Meetings on ASEAN Sub-Regional Fire Fighting Arrangements.

PART B

A POTENTIAL MODEL FRAMEWORK FOR USE IN SOUTHEAST ASIA

Note: For purposes of this document examples will be provided with reference to ASEAN countries but primarily Indonesia and the Sumatra Sub-Regional Fire Fighting Arrangement. References to these examples will be written in *italic*, indicating use as an example only.

Description of Mobilization Levels and Triggering Mechanism to Elevate Level

Examples of the types of mobilization levels, which might be included in a plan, are displayed below.

Triggering mechanisms to designate a mobilization level or to elevate mobilization level to the next higher level are based on four factors:

- amount of fire activity
- number of fire resources currently deployed
- capacity of fire resources available for deployment through authority of the mobilization level Emergency Command Coordination Unit. ** Note – the Emergency Command Coordination Unit (ECCU) is the organizational structure with authority delegated to take action concerning the forest fire.**
- prediction of imminent fire suppression activity

Mobilization Levels

- Level 1 - Provincial
- Level 2 - National
- Level 3 - Sub-Regional Fire fighting Arrangement
- Level 4 – ASEAN / International Outside ASEAN

Level 1 – Provincial

Full Activation

- Province level emergency command units (*Posko*) are established and fully operational.

- Province level contingency plans are activated and most fire resources are deployed including all available pools of personnel (*village volunteers, students, military, etc.*).
Note – for safety, firefighters deployed to assist in the fire suppression effort should be trained to fulfill some established provincial or national basic requirements prior to their assignment.
- Informal border agreements are activated (*Brunei, Kalimantan, Malaysia*).

Triggering Mechanism for elevation from Province Level 1 to National Level 2

- The response requirements exceed the maximum capacities of the province level resources.
- The province requests assistance from the national level. This may be a formal or informal request.

Level 2 – National

Full Activation

- National level emergency command coordination units (*BAKORNAS PB, MOFEC*) are established and fully operational.
- Contingency plans both at the province and national levels are activated and all available personnel and/or equipment are deployed (*heavy equipment from Public Works departments, fire equipment from state concessionaires, ABRI, etc.*).

Triggering Mechanism for elevation from National Level 2 to SRFA Level 3

- The response requirements exceed the maximum capacities of the national level resources.
- The nation requests assistance from the SRFA level.

Consideration for transition from Level 2 to Level 3:

ASEAN could establish the framework for easily transitioning to an SRFA by activating a minimum level focal point at the beginning of fire season. This could be established by consensus among ASEAN members of the TFE sub-working group or some similar sub-working group.

Level 3 - SRFA

Full Activation

- SRFA level emergency command coordination units (representatives from *BAKORNAS PB, Malaysia National Security Council, Singapore Civil Defense*) are established and fully operational.
- National contingency plans are activated and all available personnel are deployed.

Triggering Mechanism for elevation from SRFA Level 3 to ASEAN Level 4

- The response requirements exceed the maximum capacities of the SRFA level resources.
- The SRFA requests assistance from the ASEAN level.

Level 4 – ASEAN / INTERNATIONAL OUTSIDE ASEAN

Full Activation

- ASEAN level emergency command coordination units (representatives from *BAKORNAS PB, Malaysia National Security Council, Singapore Civil Defense, etc.*) are established and fully operational.
- Donor countries have a coordination focal point for donor contributions.

Composition and Responsibilities of Emergency Command Coordination Units (ECCU) at Each Mobilization Level

The principle mission of ECCUs at all levels is the cost effective and timely coordination of land management or fire service agency emergency response for wildland fire. ECCUs are the organization developed to achieve defined objectives for movement of firefighting resources.

Level 1 – Province (*PUSDALKARHUTDA*)

ECCU will consist of representatives from any province level agency having fire suppression responsibility or authority to activate fire-fighting resources.

1. Maintain roster, status (assigned, available, unavailable), and location listing of all fire suppression resources (equipment and personnel) and contingency resources within the province. The list will include contact personnel at the district level for deployment of resources. This list is to be made available to other coordinating bodies.
2. Prioritize response of fire suppression resources based on clear and transparent criteria.
3. Determine and implement movement of personnel and equipment to fire incidents on a province wide basis utilizing established criteria.

4. Maintain information on the status of every fire, including suppression capability, within the province. Update daily.
5. Implement province level contingency plans such as training and deployment of pools of available personnel, providing equipment from specially maintained fire equipment caches, utilizing heavy equipment from other agencies such as public works, etc.
6. Activate aerial reconnaissance missions as needed.
7. Activate informal border agreements for sharing fire suppression resources if appropriate.

Level 2 – National (*TKNPKHL POSKO – information or when disaster is declared BAKORNAS PB POSKO – control operations*)

ECCU will consist of representatives from any national level agency having fire suppression responsibilities or authorities to activate fire-fighting resources.

1. Maintain roster, status (assigned, available, unavailable), and location listing of all fire suppression resources (equipment and personnel) and contingency resources within the country based on information compiled daily from the provinces. The list will include contact personnel at the provincial level for deployment of resources. This list is to be made available to other coordinating bodies.
2. Prioritize response of fire suppression resources between provinces based on clear and transparent criteria.
3. Determine and implement national level movement of personnel and equipment between provinces to fire incidents utilizing established criteria.
4. Maintain information on the status of all fires based on compiled information from the provinces. Update daily.
5. Activate aerial reconnaissance missions as needed.
6. Distribute bilateral donor contributions of equipment/personnel/expertise to the provinces based on clearly established priorities.
7. Activate informal border agreements for sharing fire suppression resources if appropriate.

Level 3 – Sub-Regional Fire Fighting Arrangement (*Sumatra SRFA – Indonesia/Singapore/Malaysia*)

ECCU will consist of one representative (with staff as needed) from each country in the SFRA having fire suppression responsibilities or authorities to activate fire-fighting resources. Donor countries, international organizations, and non-government organizations may observe and provide input as needed.

1. Maintain roster, status (assigned, available, unavailable), and location listing of all fire suppression resources (equipment and personnel) and contingency resources

within the SFRA based on information compiled daily from the national level ECCU. The list will include contact personnel at the national level for deployment of resources. This list is to be made available to other coordinating bodies.

2. Prioritize response of fire suppression resources between countries based on clear and transparent criteria.
3. Facilitate international level movement of personnel and equipment between countries to fire incidents. SFRA ECCU will serve as information and coordination focal point with countries working bilaterally to implement movement.
4. Maintain information on the status of all fires based on compiled information from the national level. Update daily.
5. Activate aerial reconnaissance missions at the SRFA level.
6. Distribute donor contributions of equipment/personnel/expertise to the national level based on clearly established priorities.

Level 4 – ASEAN/International Outside ASEAN

ECCU will consist of one representative (with staff as needed) from each country in ASEAN having fire suppression responsibilities or authorities to activate fire-fighting resources. The Chair of the ASEAN Haze Technical Task Force (or a member delegated with authority to act on the Chair's behalf) will also serve on the ECCU. If one international organization is assigned as a coordinating point for donor contributions (*UNDP*), a representative from this organization will also serve on the ECCU. Donor countries, international organizations, and non-government organizations may observe and provide input as needed.

1. Maintain roster, status (assigned, available, unavailable), and location listing of all fire suppression resources (equipment and personnel) and contingency resources within ASEAN based on information compiled daily from the national and SRFA level ECCUs. This list is to be made available to other coordinating bodies. The list will include contact personnel at the national level for deployment of resources.
2. Prioritize response of fire suppression resources between countries based on clear and transparent criteria.
3. Facilitate international level movement of personnel and equipment between countries to fire incidents. ASEAN ECCU will serve as information and coordination focal point with countries working bilaterally to implement movement.
4. Maintain information on the status of all fires based on compiled information from the national level. Update daily.
5. Distribute donor contributions of equipment/personnel/expertise to the national/province level based on clearly established priorities.

It is important to note the change in the role of the ECCUs when elevated to the SRFA or ASEAN level. At the national or lower level the ECCU's perform a command and control function in movement of fire suppression resources within a country. The ECCUs serve as a decision making and implementing body, establishing priorities and moving fire suppression

resources as needed. At the SRFA and ASEAN level, ECCUs act in a facilitation role, brokering movement of fire suppression resources bilaterally between countries and serving as an information and coordination focal point for international donors.

Funding Mechanisms for Mobilization Levels

- Funding for fire suppression at the provincial and national levels is the responsibility of the national government. Bilateral donations will be distributed based on priorities determined by the provincial or national level ECCU.
- Funding for fire suppression resources assisting from other countries are the responsibility of the benefiting country. Bilateral arrangements will be coordinated through SRFA or ASEAN ECCUs.
- Priorities for distribution of donations or in-kind contributions either bilaterally or through ASEAN funding mechanisms will be determined through the appropriate level ECCUs.
- International appeals for assistance can be issued at a national level or regionally through ASEAN. The Haze Technical Task force would be responsible for coordinating region wide international appeals for assistance.
- Funding for activation of ECCUs at the SRFA and ASEAN level is the responsibility of each member country.
- Exchange of information on terminology commonly used in communications in fire operations.

PART C

A MAP FOR DEVELOPING A REGIONAL MOBILIZATION PLAN

Required Infrastructures to Implement a Regional Mobilization Plan

- International Agreements (Bilateral, SRFA, ASEAN) for sharing of fire suppression personnel and equipment resources
- Operating Plans with Annual Review Processes
 - Procedures for requesting fire suppression resources from other countries
 - Protocols for allowing rapid mobilization of fire suppression resources across borders
 - Payment mechanisms
- Coordination Mechanisms
 - Statusing and tracking mechanism for fire fighting resources - both regularly assigned and contingency resources (manual systems such as T-cards or more sophisticated systems using computer programs)
 - Designated lines of communication linking all levels of the fire suppression organization to communicate information regarding fire and suppression resources status

Recommended Infrastructures for Further Strengthening of Regional Fire Suppression Capabilities After Development and Implementation of a Regional Mobilization Plan

- Development of on scene management systems such as the Incident Command System to establish command and control at complex fire incidents.
- Development of pre-designated professional fire management teams to manage complex incidents at the national, SRFA, or ASEAN level.
- Development of SRFA and ASEAN strategically located fire equipment caches with established maintenance, inventory, and accountability procedures
- Development of standardized terminology for fire equipment and personnel
- Development of standardized reporting formats for fire status and fire suppression resources allocations
- Development of standardized fire suppression training

Recommended Elements of a National Fire Suppression Mobilization Plan as a Foundation for a Regional Mobilization Plan

The success of SRFA or ASEAN regional mobilization plans is dependent on the strength and integrity of the national level fire suppression mobilization plans. The national level plans provide a foundation from which regional plans are built. A summary of recommended elements for a national mobilization plan follow in the next paragraphs.

Preparedness Levels

Preparedness levels may be based on a fire danger rating index. There are a number of relevant fire danger ratings systems in existence that have been modified for the Southeast Asia condition. Important considerations for selecting an appropriate fire danger rating model is sustainability of the system utilizing existing data collection mechanisms and software computation capabilities. Simplicity and ease of widescale implementation across a range of technologic capabilities are key considerations. However the majority of major fires/haze events in Southeast Asia result from human caused fires exacerbated by El Nino weather conditions. Therefore a simple but useful index would involve determining land use that is associated with high numbers of human caused fires, and correlating these areas with predicted extent and strength of El Nino weather conditions in various locations through the region. Obviously changes in land use policy and heightened fire prevention efforts are the best initial strategy in reducing the occurrence of fires.

Contingency Planning

Contingency plans as part of a national mobilization plan addresses mobilization requirements on a national scale for major fire/haze events. Key components are as follows.

- Establishment of national level coordination centers with pre-designated representation and authority to establish priorities, allocate movement of personnel and equipment, and commit funding.
- Pre-planned emergency training programs for identified pools of untrained personnel that could serve in a fire fighting capacity (military, volunteers, students, etc). Trainers and training locations would be identified as part of the contingency plan.
- Provisions for obtaining necessary tools through the use of existing “contingency” fire caches or mechanisms for requesting international assistance specifying appropriate and compatible tools and equipment.
- Provisions for establishing additional communication links as needed to maintain fire status and track fire suppression resources.

Command and Control

Responsibility and accountability for wildland fire suppression must be clearly defined with transparent chain of command and control elements. Although under normal circumstances, responsibility and accountability for fire suppression may be at a local level, contingencies for escalating command and control functions to a higher level in the event of a major fire incident must be defined. Fire suppression responsibilities may be spread among many jurisdictional agencies and defined on a case by case basis through jurisdiction location of the fire incident. In this model, interagency agreements for sharing of resources result in the most effective and economic utilization of fire personnel and equipment. The integrity of the command and control function is maintained through the jurisdictional agency responsible for fire suppression at the incident location.

APPENDIX A

Resource listing of some nations with successful Mobilization Plans

United States

The United States has multiple fire suppression agencies at the county, state, and national levels operating under the umbrella of a national command and control structure. Extensive interagency agreements and operating plans ensure cooperative relations between agencies. The National Interagency Fire Center serves as a command and control point for national level coordination functions.

Canada

Fire suppression within Canada is the responsibility of autonomous provinces. The Canadian Interagency Forest Fire Center brokers bilateral resource sharing between provinces under a Mutual Aid Resource Sharing agreement.

Australia

Fire suppression within Australia is the responsibility of autonomous provinces. The majority of fire fighters are community volunteers managed by a core group of career professionals.

Russia

Wildland fire suppression within Russia is the responsibility of the Federal Forest Service of Russia with a single chain of command from national to local levels.